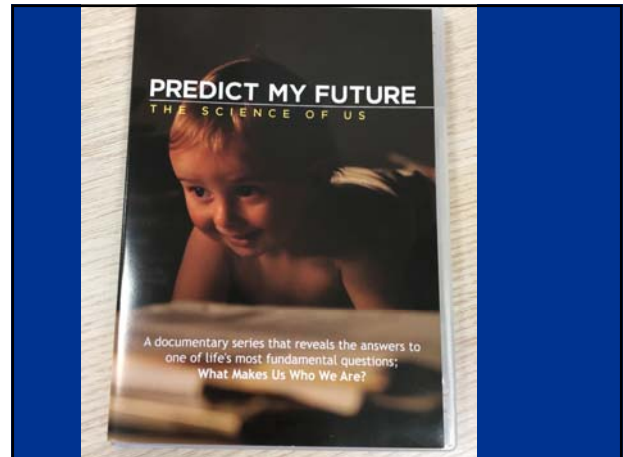


# The importance of childhood self-control for a prosocial, successful life

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University of Otago  
Dunedin, New Zealand



## Outline

- Why self-control?
  - The Dunedin Study
  - Predicting adult outcomes
  - Adolescent mistakes
  - Costs to society
  - Implications

## What is Self-control?

Self-control is the ability to regulate one's emotions, desires, and behaviours in the service of later rewards.

- Think before you speak or act
- Resist temptations
- Give considered response instead of an impulsive one
- Resist saying something inappropriate (or hurtful)
- Resist 'tit for tat' (hurting someone because that person hurt you)
- Resist jumping to conclusions

## Self-control:

Studied by all behavioural sciences

- **PERSONALITY PSYCHOLOGY** Conscientiousness, impulsivity
- **CHILD PSYCHOLOGY** Delay of gratification, difficult temperament
- **ECONOMICS** Inter-temporal choice, reward discounting
- **NEUROSCIENCE** Executive function
- **PSYCHIATRY** Inattention-hyperactivity
- **MANAGEMENT SCIENCE** Will power, self-discipline

## Why Study Self-control?

Childhood self-control predicts success and failure in adult life, above and beyond intelligence and family wealth



## Self-control:

More necessary today than it used to be?

- **AVOID OBESITY** in an era of ready food availability
- **MAINTAIN FITNESS** in an era of sedentary jobs
- **SUSTAIN MARRIAGES** in an era of easy divorce
- **PREVENT ADDICTION** in an era of access to substances
- **RESIST SPENDING** in an era of sophisticated marketing
- **SAVE FOR OLD AGE** in an era without guaranteed pensions

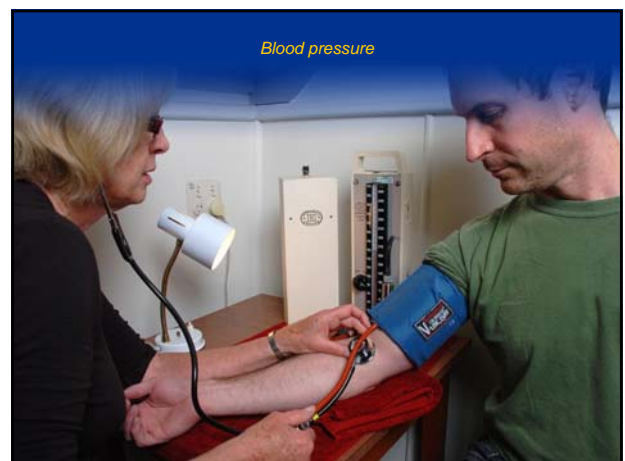
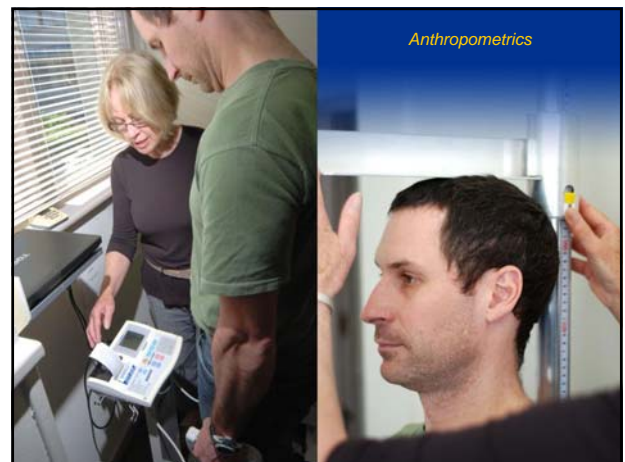
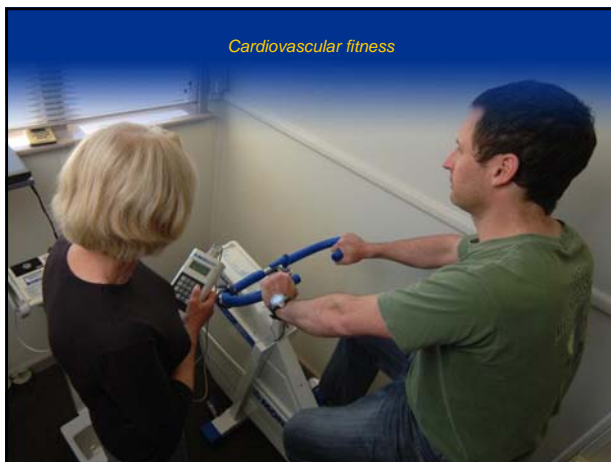
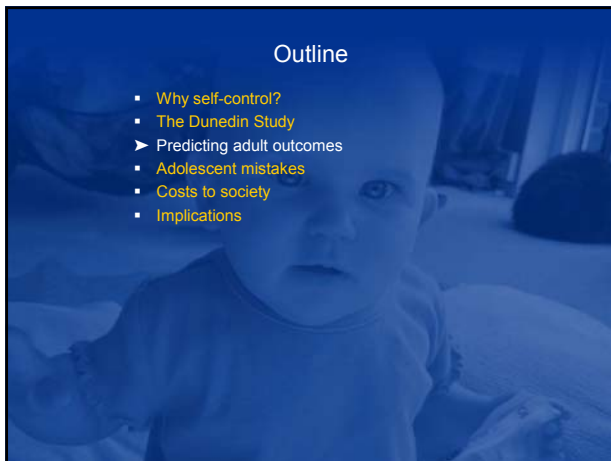
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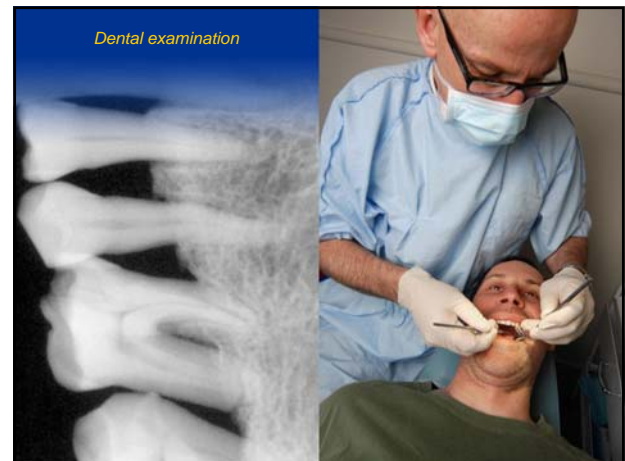
## Measuring Childhood Self-control

- **Predictor: A composite of ratings**
- **Persists across ages 3, 5, 7, 9, 11 years**
- **Agreed upon by multiple reporters**
  - Staff observations of child's self-control in the clinic
  - Parents' reports
  - 4 different teachers' reports
  - Child's self-reports



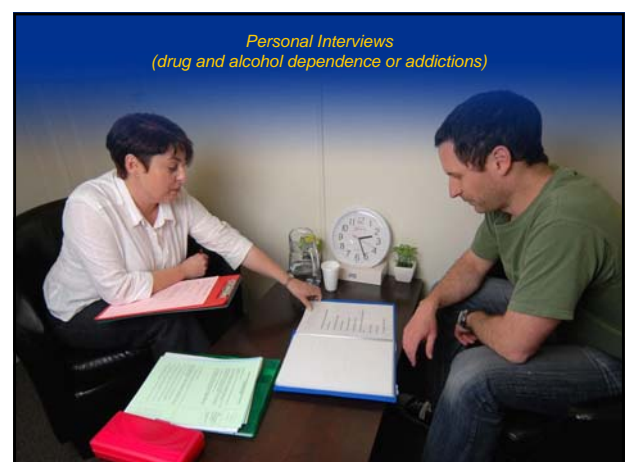
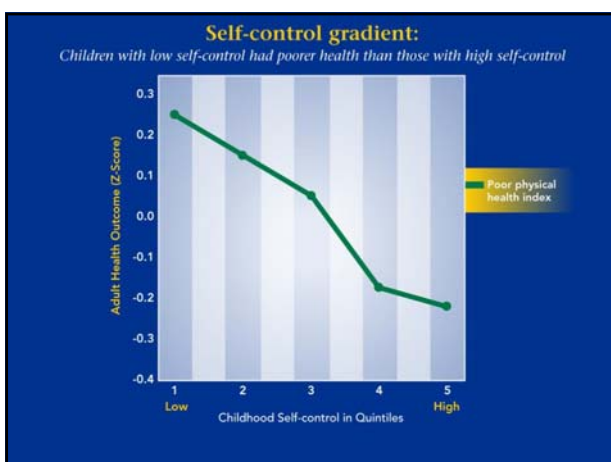






**Health Outcomes:**  
A count of clinical measures in adulthood

- Cluster of metabolic abnormalities (17%)  
- E.g. obesity, blood pressure, cholesterol
- Periodontal disease (20%)
- Sexually-transmitted infection serology (18%)
- Inflammation biomarkers abnormal (20%)
- Respiratory airflow obstruction (17%)



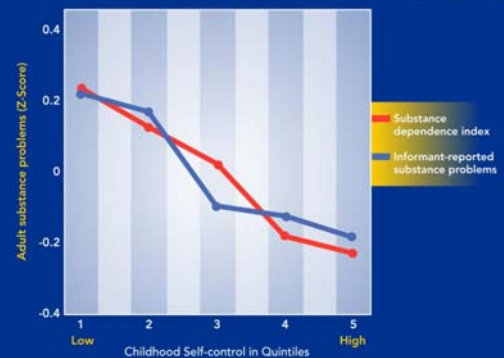
### Health Outcomes:

DSM-IV substance dependence diagnoses in adulthood

- Tobacco dependence (19%)
- Alcohol dependence (8%)
- Cannabis dependence (5%)
- Harder Drug dependence (3%)
- Corroborated by informant reports

### Self-control gradient:

Children with low self-control had more substance-use problems than those with high self-control



### Wealth Measures

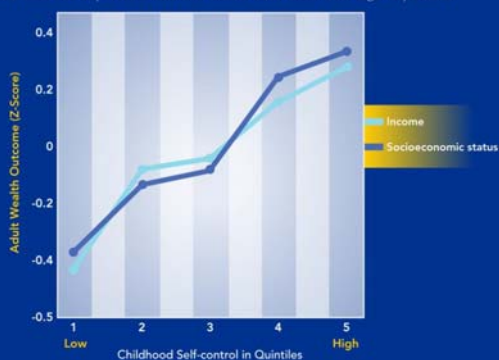
Assessments of Financial Success

### Adult wealth outcomes in adulthood

- Income in NZ dollars
- Occupational prestige

### Self-control gradient:

Children with low self-control had less wealth than those with high self-control

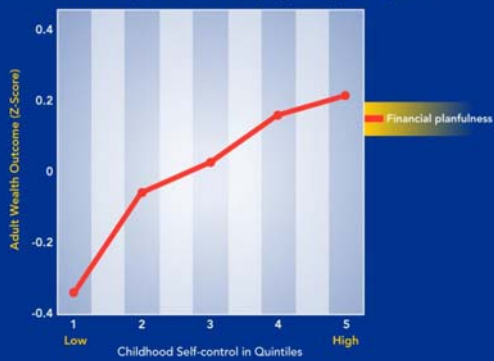


### Financial planfulness in adulthood

- Attitudes toward saving and saving behaviour
  - Financial building blocks
- E.g.
- Is saving for the future important to you?
  - Home ownership
  - Do you save money by putting money away and not touching it?
  - Investments
  - Retirement plan

### Self-control gradient:

Children with low self-control had not begun planning for the future

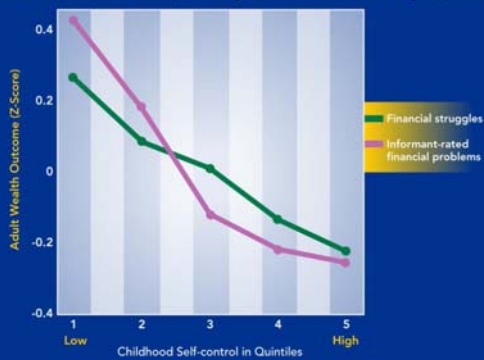


### Financial struggles in adulthood: self & informant reports

- Money-management difficulties
- Credit problems
- E.g.
  - Do you find it difficult to meet the cost of...
    - Rent, mortgage
    - Phone or heating bills
    - Major repairs to car or house
    - Do you find yourself living paycheck to paycheck?
  - Turned down for a credit card
  - Sold belongings to a pawnbroker
  - Declared bankrupt

### Self-control gradient:

Children with low self-control had more financial problems than those with high self-control



### Crime Measures

Assessments of Criminal Outcomes



### Criminal court convictions, age 18 to adulthood

New Zealand and Australian Police

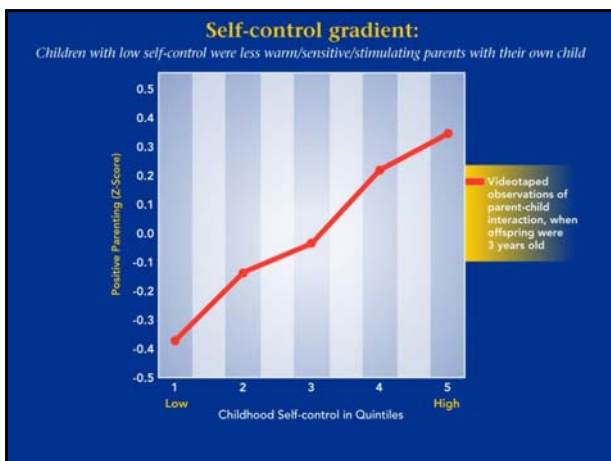


### Self-control gradient:

Children with low self-control had more crime conviction than those with high self-control







All analyses shown today controlled for four main alternative explanations...

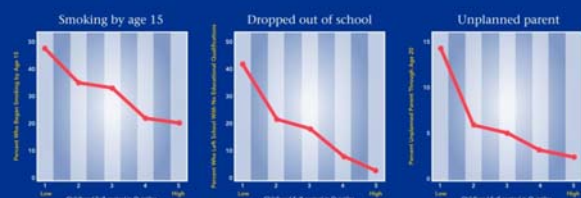
- Gradients looked the same in
  - Children from high-income families
  - Children with above-average IQ
  - Girls
  - Children without ADHD diagnoses

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## Getting trapped by adolescent mistakes:

- Children with low self-control were more likely to make mistakes as teens...

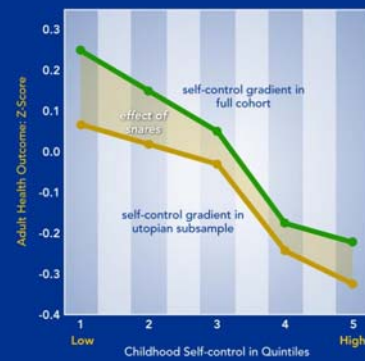


In the "utopian" subsample of the cohort who as teens...

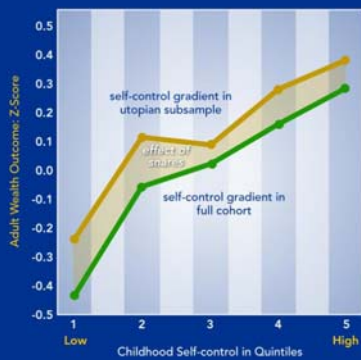
- did not smoke
- did not drop out of high school
- did not have an unplanned baby



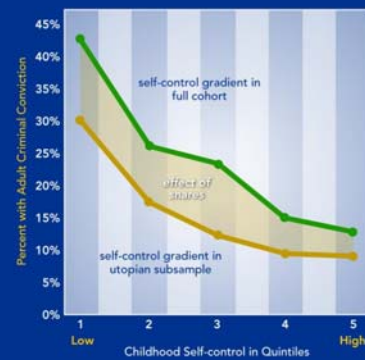
### Number of Health Problems



### Income



### Adult Crime



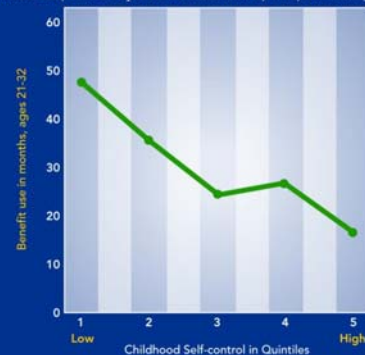
### Economic Measures

Costs to government



### Costs to Government

Poor childhood self-control predicts duration of welfare-benefit use in adulthood



Welfare-benefit use records are from the New Zealand Ministry of Social Development



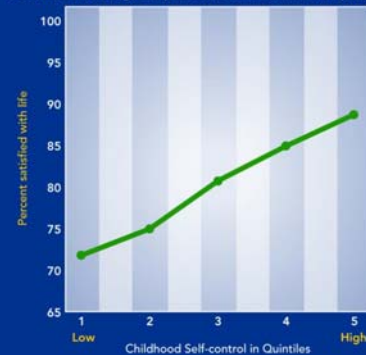
## But are they happy?

*Are people with very high self-control less satisfied with life?*



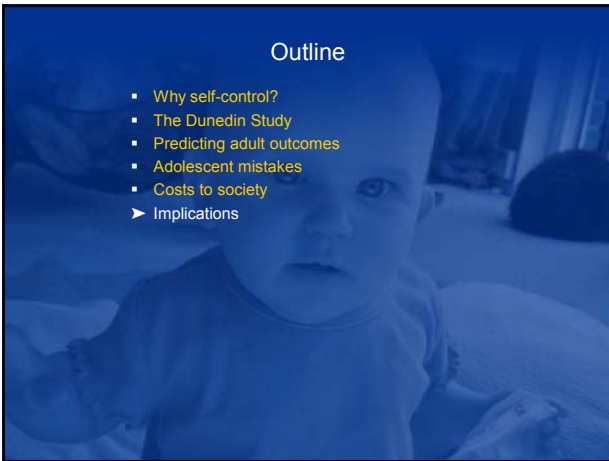
## Life satisfaction

*Children with high self-control were more satisfied with life*



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## Multiple outcomes: Implications

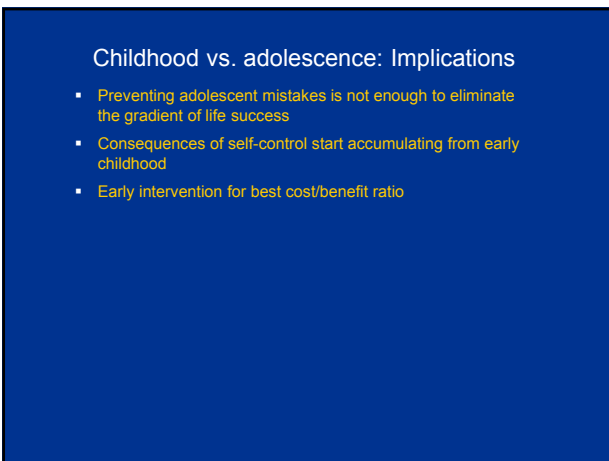
- Enhancing self-control might reduce costs of...
  - crime control
  - health care
  - social welfare
  - a healthy and financially secure old age
  - improve the life chances of the next generation

Moffitt, et al (2011). A gradient of childhood self-control predicts health, wealth, and public safety. *PNAS (Proceedings of the National Academy of Sciences of the USA)*, Vol. 108(7), 2693-2698.

Moffitt, Caspi, & Poulton, R. (2013). Lifelong Impact of Early Self-Control. *American Scientist*, Vol. 101(5), 352-359.

## Childhood vs. adolescence: Implications

- Preventing adolescent mistakes is not enough to eliminate the gradient of life success
- Consequences of self-control start accumulating from early childhood
- Early intervention for best cost/benefit ratio



## Human Capital Investment



### The self-control gradient: implications

- Targeted vs. universal intervention?
- Even children above average on self-control can benefit from better self-control skills
- Even intelligent children from well-to-do homes can benefit from better self-control skills
- The gradient implies universal enhancement



### Acknowledgements

- This on-going research would not have been possible without the co-operation and commitment of the Study members, their families and friends over a long period of time.
- Core funding for the Dunedin Multidisciplinary Health and Development Research Unit comes from the Health Research Council of New Zealand.

For copies of research articles referred to in this presentation or other information on the Study, contact Jenny McArthur:

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[http://www.otago.ac.nz/dunedin\\_study](http://www.otago.ac.nz/dunedin_study)